

line 11, please delete "BACKGROUND ART";

page 3

replace the last paragraph that continues into page 4 with the following paragraph:

- -This invention has been made in view of the problems inherent in the prior art as described. Its main object is to provide a method and device for producing a body ply material which is capable of significantly reducing a space for installing the body ply material producing device, and of eliminating a space for storing intermediates of the body ply materials.- -

page 4

line 19, please change "~~DISCLOSURE OF THE INVENTION~~" to --Brief Summary of the invention--;

page 11

paragraph 10:

Figs. 23(a) to 23(f) are explanatory diagrams showing a process of producing a body ply material.

line 26, please change "BEST MODE FOR CARRYING OUT THE INVENTION" to --Detailed Description of the Preferred Embodiments--;

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second full paragraph:

The drum 35 is provided on the outer periphery with a start end holding mechanism, in this embodiment a vacuum hole, 35a for holding a distal end of the ribbon 39, and a start end holding mechanism, in this

a³ embodiment a vacuum hole, 35b for holding a wound ribbon, as illustrated in Fig. 12. A blade groove 35c is also formed in the outer periphery. The number into which the drum 35 is divided is preferably four or more.

IN THE CLAIMS:

Please cancel claims 1-~~27~~ and add the following claims:

- a⁴ 28. A method of producing a body ply material for a pneumatic tire comprising the steps of:
- manufacturing a ribbon of a predetermined width dimension in the form of a cord having a rubber covering applied thereto;
 - spirally winding said ribbon on an outer peripheral surface of drums, and bonding lateral edges of said ribbon to each other to manufacture a wrapper;
 - setting a peripheral length dimension of the outer peripheral surface of said drums to the same as or integral multiples of a width dimension of body ply materials for use in a tire;
 - setting a winding length in a drum longitudinal direction of said wrapper equal to a length dimension of said body ply materials for use in a tire; and
 - after the step of manufacturing the wrapper, cutting said wrapper on one drum along the longitudinal direction of the drum, wherein said wrapper is cut along a gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon wound on said drum.

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29. The method of producing a body ply material for a pneumatic tire according to claim 28, wherein after the step of manufacturing the wrapper, said wrapper on one drum is cut at one location in the longitudinal direction of the drum to produce a body ply material for one tire.

30. The method of producing a body ply material for a pneumatic tire according to claim 29, wherein said wrappers on a plurality of drums different in the peripheral length dimension are cut at one location in the longitudinal directions of said drums, respectively, to produce a plurality of body ply materials different in width dimension for use in one tire.

31. The method of producing a body ply material for a pneumatic tire according to claim 28, wherein after the step of manufacturing a wrapper, said wrapper on one drum is cut at two locations in the longitudinal direction of said drum to produce two body ply materials for use in one tire.

32. The method of producing a body ply material for a pneumatic tire according to claim 31, wherein said wrapper is cut at two locations such that two body ply material differs in the width dimension from each other.

33. The method of producing a body ply material for a pneumatic tire according to claim 1, wherein a finish end of the ribbon wound on the drum is cut at a right angle to the longitudinal direction of the ribbon.

34. The method of producing a body ply material for a pneumatic tire according to claim 1, wherein said wrapper is cut along said gentle curve which passes a winding start end and a winding finish end of the ribbon.

35. A device for producing a body ply material for a pneumatic tire, comprising:

a ribbon manufacturing device for manufacturing a ribbon of a predetermined width dimension in the form of a cord having a rubber covering applied thereto;

a ribbon winding mechanism for spirally winding said ribbon on an outer peripheral surface of drums; and

a bonding mechanism for bonding lateral edges of the ribbon to manufacture a wrapper;

a peripheral length dimension of the outer peripheral surface of said drums being set equal to or integral multiples of a width dimension of body ply materials for use in a tire;

a winding length in a drum longitudinal direction of said wrapper being set equal to a length dimension of said body ply materials for use in a tire; and

a wrapper cutting mechanism for cutting said wrapper along a gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon to form body ply materials of a predetermined width dimension.

36. The device for producing a body ply material for a tire according to claim 35, wherein said ribbon winding mechanism comprises a ribbon winding guide corresponding to the drums rotatably supported by frames, and a relative movement mechanism for relatively moving said drums and said ribbon winding guide in an axial direction of the drums at a predetermined feed speed.

37. The device for producing a body ply material for a tire according to claim 36, wherein start end holding mechanism capable of holding a winding start end of the ribbon are provided for the drums.

38. The device for producing a body ply material for a tire according to claim 36, wherein said ribbon winding mechanism comprises a ribbon cutting mechanism for cutting a winding finish end of the ribbon wound on the drum.

39. The device for producing a body ply material for a tire according to claim 35, wherein said wrapper cutting mechanism comprises a cutter disposed corresponding to said drums for movements into contact with and away from the drums, and a moving mechanism for moving said cutter along a gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon wound on the drum, while holding said drums in a non-rotating state.

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40. The device for producing a body ply material for a tire according to claim 35 wherein said wrapper cutting mechanism is configured to move the cutter disposed corresponding to said drums for movements into contact with and away from the drums in a direction parallel with the axial direction of the drums, and slowly pivoting said drums to cut the wrapper along the gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon wound on the drum.

41. The device for producing a body ply material for a tire according to claim 38, wherein blade grooves are provided on the outer peripheral surfaces of said drums for cutting said wrapper along a gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon wound on the drum, wherein a blade edge of said cutter is guided by one edge of said blade groove to cut the wrapper.

42. The device for producing a body ply material for a pneumatic tire according to claim 35, wherein said frame comprises a body ply material peeling mechanism for peeling the body ply material from said drum.

43. The device for producing a body ply material for a tire according to claim 42, wherein said frame comprises a tray for receiving and supporting a body ply material peeled from the drum, said tray being transported to a direction intersecting the axial line of the drum by a tray transporting mechanism.

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44. The device for producing a body ply material for a tire according to claim 43, wherein said body ply material peeling mechanism is configured to transfer the body ply material on said tray which is moving in a transporting direction, while peeling the body ply material from the drum in a rotating state.

45. The device for producing a body ply material for a tire according to claim 35, wherein said drums are disposed at a plurality of locations, and each of said drums is configured to be switchable among a ribbon winding position, a ribbon bonding position, a wrapper cutting position, and a body ply material peeling position by a position switching mechanism.

46. The device for producing a body ply material for a tire according to claim 35, wherein said drums comprise a drum diameter changing mechanism for enlarging and reducing outer diameters thereof.

47. The device for producing a body ply material for a tire according to claim 45, comprising:

a drum reversing/supporting mechanism for rotatably supporting the pair of drums having the same outer diameter, and formed with blade grooves, and functioning as a position switching mechanism for alternately reversing said drums to two positions,

wherein a ribbon is wound on the outer periphery of a drum placed at one position by the drum reversing/supporting mechanism to form a wrapper, and

said wrapper on the outer periphery of the drum reversed to the other position by said drum reversing/supporting mechanism is cut along the blade groove of the drum to form a body ply material.

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48. The device for producing a body ply material for a tire according to claim 42, wherein said body ply material peeling mechanism comprises a peeling tool for partially peeling an edge of a cut body ply material, following cutting of the wrapper, and a rotating peeling bar entering a gap of the cut edge, formed by the peeling tool, to transfer the body ply material onto the tray.

49. The device for producing a body ply material for a tire according to claim 38, wherein said wrapper cutting mechanism comprises a roller for pressing the wrapper ahead of said cutter.

50. The device for producing a body ply material for a tire according to claim 43, wherein said tray transporting mechanism comprises a pressing force adjusting mechanism for adjusting a pressing force of the tray to the drums.

51. The device for producing a body ply material for a tire according to claim 47, wherein said ribbon winding mechanism is configured to perform a winding operation for the drums in an outgoing stroke and a returning stroke of reciprocal movements in a direction parallel with the axial direction of the drums.

52. The device for producing a body ply material for a tire according to claim 35, wherein said ribbon is formed by transferring a cord made of a plurality of twisted filaments through a twist-back member in the longitudinal direction to twist back the respective filaments and form predetermined spacings between the filaments, passing the cord in this state through a softened rubber to form a rubber layer over the outer periphery of each filament, and after the respective filaments return to the original twisted state by their own twisting stresses, passing a plurality of similarly fabricated cords arranged in parallel through a rubber extruder to flatly coat a rubber coating on the rubber layer of each cord.

53. The device for producing a body ply material for a tire according to claim 38, wherein said drums are provided in the outer peripheral surfaces with blade grooves for cutting said wrapper along a gentle curve which is substantially orthogonal to the longitudinal direction of the ribbon wound on the drum, wherein said wrapper is cut by the cutting mechanism along said scheduled cutting lines.

54. The device for producing a body ply material for a tire according to claim 45, comprising:

a drum reversing/supporting mechanism for rotatably supporting the pair of drums having the same outer diameter, and formed with scheduled cutting lines, and functioning as a position switching mechanism for alternately reversing said drums to two positions,